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ABSTRACT

The problems and promises of very small colleges, those with fewer than 750 students, are examined systematically in this pilot study. Such colleges represent an estimated four or five percent of the nation's undergraduate enrollment. This report is based on preliminary studies of three small colleges. Focus is on what this kind of institution has to offer; economic issues; dynamics of the mid-1970's; common factors (e.g., budget deficits, sources of income, enrollment decline, curriculum offerings, faculty workload and quality, student characteristics); and the issue of viability. It is concluded that these institutions are in much the same difficulty that afflicts much of unendowed private higher education, and that there is nothing inherent in the smallness of an institution that accounts for financial troubles. (LBH)

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The Very Small College

A REPORT TO THE FORD FOUNDATION

HE009462

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FOREWORD

A growing number of careful and detailed reports on the state of private higher education have helped to illuminate both the strengths and weaknesses of that important segment of our educational system. The vast majority of these studies, however, either speak about the system as a whole or at best provide details only along the categorization of institutions made by the Carnegie Commission on Higher Education. While the national scope and interest of these reports dictates this relatively aggregative approach, one of its consequences has been that some types of institutions have not received the kind of analytical attention they deserve. One of these is the very small college.

The president of one such college came to see us last year to talk about his institution, observing that very little objective information is available about the kind of college he leads. He noted that the unexamined traditional wisdom about them has been that their very nature makes them inefficient and unlikely to survive in the coming years. He thought that an assessment of this view would be timely and might provide some indication of whether very small colleges are outmoded relics from earlier days, unable to withstand contemporary economic pressures.

We were persuaded that an unbiased analytical look at a few of these very small colleges might shed light on whether the very nature of size is a controlling factor in their economic viability. We asked Professor Joseph A. Kershaw of Williams College, a distinguished writer on the economics of higher education, to prepare a brief report.

Professor Kershaw's analyses and findings are necessarily tentative and are restricted to the three institutions he chose for review. Thus, the reader will not find broad generalizations and definitive conclusions applicable to all "small colleges." Nonetheless, we believe that Professor Kershaw's balanced report does provide important insights into both the problems and promise of these institutions.

Peter E. de Janosi
Officer in Charge, Higher Education and Research
Ford Foundation

January 1976

THERE ARE APPROXIMATELY 375 four-year colleges with fewer than 500 students, all but a half dozen of them private. About an equal number, again almost all private, have an enrollment of between 500 and 1,000 students. Not much has been written about the finances of such institutions, although there has been a tendency to assume that they are too small to "make economic sense." Thus, Seymour Harris writes, "There is some experience to show that an enrollment of less than 1,000 results in high unit costs and a limited curriculum" (*Statistical Portrait of Higher Education*, p. 385). The Carnegie Commission on Higher Education calls 1,000 a "peril point" for four-year liberal arts colleges. Below that size they "run a risk of failing to take advantage of economies of scale and/or (sic) of not offering their students an adequate choice of programs. . ." (*New Students and New Places*, p. 82).

In this paper we will try to examine these small institutions as systematically as possible, in order to understand their nature and their problems and to throw some light on their chances of survival.* This is very much a pilot study. It has been conducted over one summer, and only three institutions have been studied with any care. These three, fully accredited colleges have enrollments of about 200, 300, and 650 respectively, which says something about our definition of "very small college"; we tentatively think of it as meaning fewer than 750 students. Altogether such colleges represent an estimated 4 or 5 per cent of the nation's undergraduate enrollment.

What these small colleges offer, while hard to characterize, has its strong supporters. The nature of these colleges will emerge in later discussion, and it will become clear that they offer something significantly different from the product of larger institutions. We talked with faculty at all three colleges, and with students at two of them. Many, perhaps most, believe firmly in what they are doing and would not change places with faculty and students at

*Several colleagues at Williams College have discussed my tentative findings with me. I appreciate their help, and particularly that of Michael McPherson, Assistant Professor of Economics, who also read an earlier draft of the report and made a number of helpful suggestions.—J.A.K.

larger institutions, even while recognizing the limitations imposed by smallness. And they are all proud of the individual records achieved by many former students who graduated and went on to success in later life. An initially skeptical observer feels constrained to stress that along with problems there are also successes, enough to call for taking the small college seriously in the total educational picture.

THE QUESTION AT ISSUE

Is there anything in the smallness of these institutions that makes them peculiarly subject to the financial pressures that are becoming more severe in all of higher education? We are not here passing judgment on the quality of education they have been and are offering, though we will have a number of things to say that bear on this. But whatever kind of education they do offer is relevant to our queries if one consequence of financial pressure is that these institutions reduce the quality of their product, as Hershey has cut the size of its chocolate bar. If this turns out to be the only option of small colleges, then our verdict must be that they are not viable. That is to say, the test must not be whether adult supervision for adolescents can continue to be provided—it almost certainly can. The test must be whether an educational curriculum generally equal in quality to what is now being provided can continue to be offered at prices that consumers, able to take advantage of the product, will be willing to pay.

As in almost all analysis of educational problems, this raises the difficult question of how we know what changes are taking place in the educational product or output. In any categorical sense, of course, we do not and cannot know. We can tell what is happening to costs over time, but the quality of the educational product remains very much a mystery, though we can and will make subjective judgments which, it is to be hoped, will have some validity. In any case we are forced to do this, and the reader is warned that this injects a not insubstantial measure of subjectivity into the analysis. We take some

solace from the probability that it is easier to detect changes in educational quality over a few years than it is to describe an absolute level of quality or fit it into a scale with many other and larger institutions; happily it is only changes that are relevant to this study.

THE ECONOMIES OF SCALE ISSUE

As we indicated in the opening paragraphs of this paper, there is some tendency to assume that small size and high unit costs (per student) go together. If that is the case, the problem of keeping such institutions alive is that much more difficult to resolve. What can we say about this issue?

The most careful recent study of liberal arts colleges appeared in the Carnegie Commission's two studies, *New Students and New Places* (1971) and *The More Effective Use of Resources* (1972). The commission thinks it has found a relationship suggesting that costs per student fall as size increases. But particularly for liberal arts colleges it properly hedges this conclusion: "Our data also indicate that. . . there are wide differences in cost per student among similar institutions of approximately the same size." (*The More Effective Use of Resources*, p. 39.) The scatter diagrams showing this relationship in *New Students and New Places* (pp. 76-7) indicate an enormous variation around the fitted curve. For example, for 1967-68 the diagram shows the lowest "educational and general" cost per student for an institution with 500 students to be \$750, the highest about \$3400. The substantive meaning of a fitted curve with this kind of variation is shaky at best.

Our view is that the primary determinant of cost per student is in fact what income happens to be. That is to say, a nonprofit institution will spend whatever money it has (plus a little more, many would say). Its efforts are devoted traditionally to increasing its income and its costs accordingly, because educational leaders are persuaded that the more they spend the better the quality of their product. An endowed institution with a generous alumni

body will have high costs per student because it has large income per student. Harvard has high costs not because it is large and not because it is small, but because it is rich.

In fact, the institutions we have examined have costs per student that appear fairly moderate. Accounting practices are not universally similar and there are other problems of comparability, but the following estimates of educational and general costs per student (omitting auxiliary enterprises) are, for 1973-74, probably fairly accurate:

Institution A	\$3725
Institution B	3835
Institution C	3700

These are close enough to be regarded as identical. A study of 48 liberal arts colleges shows cost to be about \$3610 for the median of the 48 although the range is from about \$2400 to about \$6000 (Jenny & Wynn, *The Training Point*, p. 81, adjusted inexactly for inflation). A recent study of nine Ivy and Little Ivy League institutions shows an average cost of \$5300 for the same year, again with substantial variation. The conclusion seems inescapable that the small institutions are not out of line, and that their smallness has not made them notably high-cost.

The cost side, of course, is only half the story. It may be that the very small college produces an inferior product, so that cost comparability is quite meaningless. Many have pointed out that small institutions can offer much less variety in their curricula, only marginal science programs, and hardly ever an outstanding scholar of national or international reputation, except perhaps as an occasional visitor. The small institution admits all this but points out that it can be much more flexible in responding to individual student desires, can offer far more intimate faculty-student relationships, and can afford much more educational experimentation. Wherever the truth lies, it does seem to be the case that the small college is producing a *different* educational product from that of larger colleges, and one of merit at least for a limited clientele. For our immediate purposes the relative quality of large and

small institutions is not the issue; what we are concerned with is whether the small college product, whatever it is, has been deteriorating or may deteriorate in the future. With respect to the recent past we see no evidence of significant quality decline; as to the future we will need to speculate as well as we can about the impact of anticipated changes on the quality of the product, for that is an important part of the answer to our basic question.

DYNAMICS OF THE MID-1970s

Several developments of note in the mid-1970s have exacerbated the difficulties in all of higher education, and seem to have been particularly troublesome for the small colleges. One is the slackening of growth of the pool of college students, and the threat and expectation that the growth will stop altogether in the near future. All three of our institutions are experiencing trouble filling their entering classes, and the numbers of students enrolled are actually declining in each. Since these institutions are all essentially tuition-financed, there has been a corresponding drop in their principal element of income. All are working to reverse this trend, and all are hopeful of success.

A second development bears on the need of these institutions to increase their sources of income. In some cases because the institutions are so new, in others for other reasons, none has been able to count on a steady and significant flow of annual alumni giving. Each has had some success with finding funds from foundations and individuals, including alumni, though each year it has been a struggle. Whether this sort of ad hoc uncovering of funds can continue is at least problematical. Both individuals and foundations are having to retrench these days; this is doubly serious since the need for gifts can be expected to rise in future years. One of the institutions, with a century of history behind it, is moving to try to establish an annual alumni current giving drive; the others are so new that they have very young and very small alumni bodies, so that there is no real pay dirt there.

Finally, if the income side of the ledger is sluggish, the cost side is not. The general inflationary problem has hit colleges hard and the unbelievable jump in the price of fuel oil in particular and energy in general has made a shambles of many an educational budget. So the squeeze has come from both sides and shows no signs of letting up. All of this puts a premium on the ability to adjust rapidly. Yet long lead times necessary both in expanding and reducing faculty, tenure, and the need to avoid infringing on academic freedom mean that no higher educational institution is good at this, and the smaller ones may be less good at it than the larger ones.

WHAT THE THREE SMALL INSTITUTIONS HAVE IN COMMON

In our visits to the three institutions and in our study of the financial and other documents provided by each, the most surprising discovery was how much they had in common. Many, though not all, of these common features are in marked contrast to the situation to be found in larger institutions. It would be interesting to know whether other small colleges exhibit similar characteristics, or whether these three happen to be unusual.

First a look at the budgetary situations at the three institutions. In all three, deficits have developed in the very recent past and threaten to become larger in the near future. In the 1975-76 year all will have deficits running as high as 10 per cent of their educational and general income. In each case the deficits have developed because in the past few years income has remained almost steady (largely because enrollment has declined about as much as tuition charges have risen) while expenditures have continued to climb. All three have plans to reverse these trends by reversing the developments in enrollment and by increasing the flow of gift income. All hope to avoid having to reduce the size of faculty, though some have already brought about modest reductions and some are beginning to make contingency plans which they hope will not have to be implemented.

In all three cases the deficits are being financed by borrowing, and debt service has become an important element in the budget. Not all debt, of course, has an adverse impact: a student dormitory, federally financed usually at low interest rates, should be a minimal burden (unless of course there are not enough students to fill the dormitory). A good part of the debt of our three institutions is of this sort. But much of it is mortgaged on non-income earning property, and the frightening aspect is that some of it is working capital loans at high interest rates: $2\frac{1}{4}$ per cent above prime rate in at least one case. When this sort of debt is used to absorb a deficit, it can impose a future annual charge as high as 11 per cent for interest alone. All institutions are in the process of trying to rationalize their outstanding debts, but with today's interest rates there is no painless solution available. This lends a considerable urgency to the need to get budgets into balance quickly.

In all three institutions tuition and fees constitute almost the sole source of income — over 90 per cent in each case (omitting auxiliary enterprises which tend to pay for themselves). There is little or no endowment, and traditions of significant alumni or other giving, as we have suggested earlier, have not developed. This, of course, makes these colleges peculiarly subject to changes in student tastes for higher education and makes customer response to changes in the level of tuition all-important.

Finally with respect to the budgetary situation, all three colleges allocate above 10 per cent of their total budgets to scholarships and other financial aid to students. This is a high figure relative to other institutions. Interestingly, though all three institutions still use their financial aid to some extent to assure a heterogeneous student body, they are coming more and more to regard the financial aid budget as a resource to permit selective price cutting for students able to pay part but not all of the price. The notion is that a student who pays part of the price is better than no student at all *provided* (1) there would be a vacancy if he did not enter, (2) the amount he pays is above his marginal cost (which is pretty low when there are vacancies), and (3) the reduced price is not made available to all students. This is price discrimina-

tion at its best if done artfully and helps to maximize total income; it is sanctioned by the very finest of moral considerations: helping the lower-income student receive an education. It *does* mean, of course, that full scholarship students (e.g. \$5,500) should be few and far between since they reduce the ability of the financial aid budget to generate net revenue. Incidentally, financial aid officers at the three colleges are just beginning to appreciate the rather subtle nuances to all this.

We turn now to the admissions situation, and again find that the three colleges have much in common. An improvement in the admissions picture would do as much as, and perhaps more than, any other single thing to restore viability to these colleges. Yet all three have experienced enrollment declines over the past three years or so of between 10 and 15 per cent; when they opened in September 1975 two of the three had fewer students than a year ago, the other was probably marginally above last year, but none of the three has a student body as large as it would like.

The three colleges are all responding to this situation by attempting to improve their admissions procedures, in some cases adding staff. They are not certain why their applicants are falling off. The obvious speculation is that as tuitions have risen the financial gap, particularly as against the public educational sector, has become "too great." Tuitions at all three institutions are high — though below the Eastern Ivy League colleges. Presumably a thoughtful prospective freshman (or his thoughtful family) will note that at one of these small colleges the price he pays essentially covers the cost of the product. At an endowed institution there is a substantial subsidy; at a state institution an even larger one. Have the small colleges priced themselves out of the market? We simply cannot answer this very important question. The admissions people are optimistic, pointing to the fact that all they need is an additional 20 or 35 or 100 students and that it *must* be possible to find them. A promising manner of recruiting students lies in organizing alumni to help with local committees, receptions for prospective interested students, publicity, and so on, a technique that has been used with much success by many

other colleges. All three institutions are now trying to solicit such alumni assistance.

One consequence of the fall in enrollment has been some decline in the quality of students at the low end of the spectrum, a decline that is not easy to quantify but which appears to have been modest so far. SAT scores and rank in class have gone down to some degree, but this has happened, at least with SAT scores, across the nation. The drop in our three colleges has been a moderate one. It is true, however, in each institution that "we are saying no to very few applicants," "we take five out of six," or "if they have money we'll take them unless they are dangerous." What has kept quality from falling further up to now has been self-selection among the applicants, the danger is that such built-in protection will erode in a very few years.

Whether this decline in applications and admissions is a temporary or permanent development would seem central to the question we are considering. The clientele to which these institutions appeal is a special one, and always has been. It may be more sensitive to price differentials than the average potential entrant into higher education. Smallness, and all that goes with it, is extremely attractive to some, but it may be that the price they are able or willing to pay for it is limited. If so, these institutions are face to face with continuing adjustment problems that may drive them to the wall. Hence our critical concern with the enrollment developments.

The largest of our colleges has a curriculum that is farther along the spectrum toward the traditional than the other two; even so, all three have much in common with respect to their curricula. The most outstanding curricular feature would appear to be its informality. There *are* regularly scheduled classes, particularly for freshmen and sophomores, but there are large numbers of "courses" that are made up by a student and a faculty member to fit a particular student's needs or desires. These tailored courses are known as tutorials, and customarily have one student who is expected to do most of his work on his own, perhaps meeting once a week with his faculty sponsor to check on progress. The courses frequently cross disciplinary lines,

one of many indications that the traditional disciplinary boundaries are not taken very seriously.

In good part the large number of tutorials is the small college's way of coping with the inability of a small faculty to offer a broad choice in its formal course offerings. In part it is a technique to spur students to demonstrate their initiative, responsibility, and independence. It means that a large number of courses that do not appear in the catalog and that change from year to year are available. It means, finally, a nearly incredible workload for faculty.

Another interesting curricular feature found in all three colleges is the important role played by the performing and manual arts. Rug weaving carries academic credit in one, furniture making in another. In all three, drama and performance with a musical instrument are significant parts of the curriculum. Furthermore, performance on the stage tends to have at least equal billing with History of Drama. In all three colleges these kinds of courses have been growing in popularity among the students, which has tended to lend some justification to the requests from that part of the faculty that it should grow, if necessary, at the expense of the faculty of liberal arts.

It is perhaps not surprising that this has exacerbated the natural if latent antagonism that almost always exists between these two segments of a faculty. On all three campuses an outside observer quickly becomes aware that the schism is substantially more severe than is customary. No doubt the "success" of the performing and manual arts has contributed to the usual problems; faculty members from these areas, who in most institutions weakly defend themselves from the usual "mickey-mouse" charges or get pushed into the extracurricular realm, here take the offensive, criticizing the liberal arts people for taking student time away from "what the students want to do, which is why they are here (and paying tuition incidentally)." We do not want to make too much of this; it is not threatening the integrity of the faculty or anything of the sort. But it is clearly present and it is interesting to speculate whether it is the result of smallness, where experimentation and student initiative tend to be so characteristic.

With respect to faculties we again find that there is much in common among the institutions, with the largest college being somewhat (but only somewhat) more traditional than the smaller two. Perhaps the most outstanding characteristic is the amount of work routinely put in by the faculty members. These are teaching institutions with a vengeance with almost every waking hour taken up by the process. This results from the proliferation of tutorials which have to be added on to the regular class schedule. In all three institutions the student-faculty ratio is around the 10 to 1 figure, a highly respectable ratio. But whereas a faculty member at a larger and more traditional institution with the same ratio will meet his average of fifty students per semester perhaps twenty-five at a time in a scheduled class (with, of course, some outside consultation with students), faculty members at our three institutions might have three "courses" with ten or twelve students each and as many as a dozen tutorials with one or two students each. Some of these tutorials may not require much preparation, but some obviously do, and if the teacher is to stay ahead or abreast of the student he has mighty little leisure time. As if this were not enough, much of the administrative work of the institution is done by faculty on a "volunteer" basis.

The impact of all this on the faculty is straightforward enough. There is almost no time for research, and anyone interested in pushing ahead with his research will not come, or, if he comes, will not stay (unless the market is as bad as it is today!). Young teachers in these institutions find that they have real trouble keeping up with their professional fields (they lack time and funds to get to professional meetings and have very limited professional companionship at the college), and, as a result, if they stay for a few years they lose whatever marketability they might have had. To add insult to injury, faculty pay scales at the two smallest colleges are significantly below average, and all three are foregoing or have recently foregone salary increases, so the faculty is slipping further behind the cost of living. It is not exaggerating to say that an overworked, underpaid faculty is subsidizing the college.

Why then do they come, why do they stay (as many of them do), and what

sort of people are they? In recent years the very poor market has had a favorable effect on recruitment. But it has not always been so, and many recent recruits had other offers to consider when they made their decisions. The principal reason they come appears to be that they like the freedom they have in what and how they teach, a freedom almost all of them stress when pressed in conversation. They like the intimate relations that develop with students, and they like the small classes. Teaching is their interest in life and few places offer such ideal teaching conditions. Parenthetically, they tend to be people who like the rural outdoors, including the winter outdoors; living close to nature and adjusting to it attracts many.

We tried to get a feel for the quality of the faculty. As is to be expected there are very few scholars in the university sense (publication of books and articles is simply not a part of this scene). But graduate degrees come from respectable graduate institutions. And in the frequent instances where a faculty member had taught somewhere else it was usually at well-known and well-regarded institutions. Many individual faculty members are impressive, personally and intellectually, and clearly have what it takes to be good teachers.

As is to be expected, faculties at small colleges tend to have rather different qualifications from those of larger institutions. Of the faculty names in the three 1974-75 catalogues, 25, 30, and 32 per cent had the Ph.D. degree. Quite a few indicated that they are finishing their degrees while they teach (and some no doubt will). As a bench mark, in 1963 in all four-year U.S. colleges and universities 51 per cent of faculty in all fields (including fine arts, physical education, and others for which the Ph.D. is not the customary final degree) held the Ph.D. (Seymour Harris, *A Statistical Portrait of Higher Education*, p. 477). The difference is in part accounted for by a presumed greater emphasis on the performing and manual arts in our three colleges, and in part by somewhat less emphasis on the Ph.D. — which may if anything be an enlightened policy for essentially teaching institutions.

We do not wish to leave the impression that there are no faculty members of the traditional type, the kind who could move without undue effort to the

University of Michigan or Beloit College. There are some, and they are highly prized. The point is that there are fewer. Additionally, there tend to be a number of unusual, or non-academic faculty members. We do not mean this in any pejorative sense. But particularly in the performing arts there may be people who have never been to a graduate school (sometimes these are among the most successful faculty members). This is another sign of the flexibility of these institutions, which sometimes, though not always, has quite positive consequences for the institution.

To summarize with respect to faculties, they are providing a product to their student bodies which is somewhat different from that provided by most other faculties. They tend to be dedicated to the institution and the student rather than to their discipline. There is a working-togetherness that is simply not possible in larger institutions, an opportunity for students to see educated adults up close. How well these things substitute for a somewhat more formal disciplinary learning is most difficult to say. Whatever it is that is being provided, it certainly cannot be brushed aside as unimportant or worthless or inferior. Our guess is that for certain kinds of young people it may be more constructive and helpful than exposure to highly qualified scholars holding forth in a lecture hall with several score of students.

We ought to conclude this section on faculty by reiterating that the foregoing paragraphs are more applicable to our two smaller institutions than to our largest. The latter has some of the attributes described, but as we have suggested it tends to be somewhat closer to the traditional colleges in terms of its faculty.

Finally we turn to a consideration of the students. Two of our colleges experienced, earlier than most, adverse publicity with respect to the use of drugs by students, and all were thought to be among the first to tolerate permissiveness in sexual behavior. (Interestingly, this apparently did not affect their enrollment.) To some extent this image is still with them, although by now their students are probably not different in these respects from others. It is really difficult to characterize these students generally. The

colleges speak of them as being more "creative" on the average, and as having more independence and initiative (although faculties complain about a too high proportion of "dead beats" without motivation). We would expect students with creativity and independence to choose these institutions, for there is ample scope for these qualities.

The most obvious external and measurable characteristic is the students' tendency to drop out—a volatility that suggests that for many their attachment to the institution is tenuous at best, or that if they feel their creative aspirations are not being met they toss it over and walk out. At any rate attrition rates are very high at all three colleges, an important consequence of which is that to keep a student body of a certain size more new students have to be admitted than would otherwise be the case. All three worry about attrition and would like to reduce it. None seems confident that it knows why attrition is so high. It may stem from their respective locations: all are at least several hours from a city of any size, and are situated either in or near a very small town.

There is one consequence of this volatility and attrition that deserves particular mention. An obvious possible economy facing all institutions is to reduce the size of the faculty, particularly if enrollments do not turn around. Given the present workloads this would surely require a severe reduction in the number of tutorials. But administrators point out that if this were done a very real possibility would be that the disappointed students would simply leave, thus exacerbating the situation rather than alleviating it. The more fickle the customer, the more constrained the options!

THE ISSUE OF VIABILITY

So much for background—we are now ready to turn back to the original question. It should be clear from the foregoing pages that all three of our colleges are in financial difficulty and are struggling to maintain their academic programs in the face of dwindling resources. Whether this is a temporary set of troubles

that will be surmounted in due course, or a permanent condition that will lead ultimately to disaster is what we are trying to shed light on. A careful look at any set of educational institutions would indicate serious troubles, no doubt of a different sort, but ever since the end of the "Golden Years," nearly a decade ago, much of higher education has faced severe difficulties. The question is whether the small colleges are worse off.

Some aspects of smallness are troublesome. In one sense small colleges are at the point where some of the indivisibilities in the educational process seem to bite hard if reductions in size have to take place. Elimination of one or two or a half dozen faculty members usually means cutting departments in half or perhaps cutting out whole areas of study. Presumably this has a more severe impact than similar percentage cuts in large institutions. We say "presumably" because at earlier dates the small institution *did* exist at that smaller size.* The concept we are grappling with here is an elusive one. Institutions take on a given character which is in good part a function of their size, and a large change in size will necessarily have a significant impact. A research university whose enrollment somehow went from 30,000 to 15,000 (assuming it could make all the necessary adjustments) would still be a research university; it is impossible to believe that any of our three institutions could exist at half their present size even though the largest would still be larger than the smallest is now. This is a subjective point, but it seems clear, at least, that at some stage cutting back becomes self-defeating according to any criterion, and small colleges must be closer to that point than large universities.

Another point relative to cutting back, though hardly critical, is brought up frequently. Small institutions have little voluntary turnover, so reductions

*The writer is reminded of an experience that occurred during an earlier study. An administrator in a large research university which had been forced to retrench expressed serious concern about his ability to supply a viable physics program now that the number of physicists at the university had been reduced to only 65! These things tend to be relative.

mean termination of real people. And since these communities are small they tend to be intimate. Personal problems are known and inevitably enter the decision process. Not only are such decisions extremely difficult to make because they concern close friends, but they also tend to get made on the wrong grounds: minimizing the personal discomfort, or some such criterion that ought to be irrelevant, rather than maximizing the welfare of the institution. And there may be reason for such seeming irrationality. If an "unfair" decision is taken in a small community, the impact on the morale of the entire faculty is likely to be seriously adverse.

But these concerns seem to be less than critical. They argue that moderate reduction in size is not easy to pull off, not that it is impossible. Size reduction—even maintenance of a steady size—is always difficult, whatever the size of the institution, as higher education is discovering to its sorrow these days. What it takes is firm leadership and a widespread understanding of the problem. We see no less of this in small colleges (at least in our sample) than in others.

The real issue for these small colleges is whether they are going to find resources in amounts that grow along with costs, including enough for a year or two of catching up. Their principal source of income has been tuition. If they are at the point where their tuition is too high to attract students, so that raising tuition brings no more revenue, or if they are at the point where cutting costs reduces their attractiveness, so that students apply in falling numbers, then the jig is up. Finding alternative sources of income to make up for that situation is all but out of the question. At this moment they are not in this situation, though this is the principal reason why we think the enrollment trends are so critical.

As we see it, small colleges are sharing the experience of many institutions of all sizes. Expenses have outstripped revenues. Revenues are extremely difficult to increase, and institutional inflexibilities make it very difficult to contain the growth of expenses. When revenue this year is where expenses were last year deficits result, and even though in future years revenues and

expenses grow together deficits persist—indeed they get worse if they are financed by high interest loans. Such a situation is unhealthy and needs to be brought under control quickly, but the changes in either revenue or expenses required to do this are not great. Unless enrollment spurts unexpectedly these adjustments will require some reductions in faculty size, and cuts elsewhere as well, but as of now anyway it appears that these could be made, under effective leadership, without significant impairment of the educational product.

We looked with particular care at the financial prospects of one of our three institutions, constructed a hypothetical but close to real budget and set of projections, and the lessons learned appear to be generally illuminating. This institution has a 1975-76 deficit that will be about 10 per cent of its revenues. Its outstanding debt is slightly below one year's total revenue and interest payments amount to about 8 per cent of the total budget. We looked three years into the future under a number of different assumptions to try to get a feel for how much would have to change to make the institution financially sound.* The results suggest a clear need for additional capital, which is hardly surprising. But the requirements are in no sense overwhelming, which tends to reinforce our view that we find nothing in smallness that distinguishes these institutions financially from their larger peers. Capital in the amount of something like two-thirds of educational and general annual income to help an institution through a three-year period sounds like a college with a modest endowment; what we are suggesting is that if these institutions had such modest endowments, or if they had no debts, which is almost the same thing, they would be very near or at the break-even point.

We do not intend to suggest that these colleges have an easy future. Even if

*The case is developed in some detail in the Appendix, to which the interested reader is referred. Incidentally, the reason the case is hypothetical is that the way the books are kept makes it impossible to take out auxiliary enterprises easily. Yet including what is essentially a "wash item" would distort our picture.

they do succeed in putting together their preferred package of assumptions and emerge triumphantly in the black three years hence, they will face it all over again. (It might be a little easier then since, presumably, new capital would be used to pay off debt and hence eliminate some or all annual interest payments.) Furthermore, as we have seen, the presumed increases in enrollment are highly problematical, and some of the other assumptions (e.g., a faculty that does not grow in size while the student body does) require a firmness that educational institutions have traditionally found to be in short supply.

CONCLUSION We conclude that these institutions are in much the same sort of difficulty that afflicts much of undowered private higher education. They need more capital, and if they find it and manage things well they will stay alive. These problems have become more acute as the total pool of students for higher education begins to grow less rapidly,* and they will worsen when the pool begins to contract in a very few years. These colleges draw from a specialized clientele which is a small part of the total pool. Whether this special segment will contract less or more rapidly we do not know. The small college has supplied a special type of education to a special type of student and still does. It does this at a cost per student that is not very different from that incurred elsewhere. Prices (i.e., tuition and fees) are high, but so are they in much of private higher education, and our three examples may happen to be on the high end of tuitions charged by small colleges. An initially skeptical observer who believes in the merits of a diversified higher educational system has to hope that these institutions, and at least some of the other small ones, find their way through the troubles of the present and the next few years.

*For the academic year 1975-76 an unexpected increase of around 9 per cent apparently took place; this is a perturbation rather than a reversal of the trend.

How typical are these three colleges of small institutions and would a larger study bring different conclusions and impressions? We cannot be sure. We were fascinated to discover how much our three colleges had in common. We suspect this is more than coincidence, because we are persuaded that smallness does generate some unique characteristics. But we did not visit an urban small college (probably rather few are urban), and we did not visit a financially prosperous one (of which there probably are not many!). All three of our colleges had impressive and effective presidents, and it is probable that a small college without such leadership would be different in critical respects. Finally, and perhaps of most significance, our study has a heavy New England bias. Other parts of the country may be vastly different.

In closing, we should reiterate that our conclusions are based on a very small sample, and they can therefore be offered only in a tentative fashion. Only a study of a larger sample of institutions would allow us to produce findings in which we could have considerable confidence. Nonetheless, if our earlier analysis of the economies of scale issue is valid, examination of additional small colleges would probably not contradict our general conclusion that there is nothing inherent in the smallness of an institution that accounts for financial troubles.

APPENDIX The data at the end of this Appendix are set forth for illustrative purposes only. They do not represent an existing institution, though they might, and they have been heavily influenced by one. They show a highly simplified budget for the current academic year (1975-76), the preceding year, and 1978-79, three years into the future, with both income and expense for auxiliary enterprises eliminated. The set of assumptions that go into the construction of the fiscal 1979 budget is one of many sets that could bring the result shown; the display is supposed to make clear just how difficult or simple it would be to put this institution into the black, so that the reader can judge for himself what the possibilities are. Problems in other small institutions are roughly proportional.

The assumptions that entered the 1979 manipulations are as follows: 1) The size of the faculty is held constant; 2) Faculty compensation rises 5 per cent annually; 3) Tuition rises by \$100 per year; 4) The student body increases at 15 per year—about 7 per cent per year; 5) Current giving rises by 10 per cent per year; 6) Financial aid rises proportionate to the growth in the student body; 7) Other items are adjusted roughly; 8) Someone gives a million dollars in capital.

The first seven assumptions at the very least seem possible of achievement. If they are achieved, then assumption number eight, which is what it takes to restore viability, becomes a measure of the problem. It restores viability, of course, because it is used to pay off the debts, thus eliminating the major expense item of "interest," and what is left increases the revenue item of "endowment income." Incidentally, another run was made holding financial aid constant; this would reduce the capital requirement to about \$600,000. But given the admissions problems looming ahead that simply may not be possible.

These hypothetical calculations suggest that a million dollars would create a good chance that an institution could continue to educate some 260 students per year; the real question is whether it is worth it. Each reader will have to answer this question for himself, though on most objective criteria it would seem a bargain.

HYPOTHETICAL EDUCATIONAL AND GENERAL BUDGET
(thousands of dollars)

Fiscal years	1975	1976	1979
Revenues			
Tuition and Fees	\$668	\$800	\$1000
Endowment Income	7	6	20
Current Gifts	75	75	100
Government	18	20	25
Other	40	40	50
Total Revenues*	\$808	\$941	\$1195
Expenditures			
Faculty Compensation	337	400	465
Other Institutions	9	12	14
Non-Faculty Compensation	239	272	320
Library	16	16	19
Student Services	26	36	43
Maintenance and Operation of Plant	62	74	85
Interest Payments	44	75	—
General Administration	22	24	30
Financial Aid	142	160	210
Total Expenditures*	\$897	\$1069	\$1186
Surplus or (deficit)	\$ (89)	\$ (128)	\$ 9

* Excepting auxiliary enterprises.